ARCHITECTURES FOR A MODULARIZED DATA OPTIMIZATION ENGINE AND METHODS THEREFOR

ABSTRACT

A data optimization engine disposed inline with a first communication channel and a second communication channel. The data optimization engine comprises a transmit interface circuit configured to receive a first data stream from the first communication channel and to obtain a first data file from the first data stream. The data optimization engine further includes an optimization processor coupled to the transmit interface circuit for receiving a second data file from the transmit interface circuit. The second data file represents the first data file after the first data file has been processed by the transmit interface circuit into a format suitable for optimization by the optimization processor. The optimization processor performs one of a compression and an encryption on the second data file, thereby obtaining an optimized data file. In one embodiment, the first data file is a Fiber Channel data frame. In another embodiment, the first data file is encoded using 10-bit encoding, the format suitable for optimization by the optimization processor is an 8-bit encoding protocol.